

## Take the Easy Way Out

When I was a kid, people were always telling me that there was no substitute for hard work. If I wanted to be smart, I had to sit and force myself to read hard books. If I wanted to lose weight, I had to force myself to exercise. If I wanted to play piano, I had to force myself away from the computer to practice. Cheating, they explained, would only cheat myself in the end.

And yet today I eagerly ran to the library to grab five large books (and return seven more), felt an itch to go jogging, and walked away from web surfing so I could go practice a musical instrument. The adults were completely wrong.

Your body's resistance to an activity isn't an obstacle to be overcome, it's a message that you're being an idiot, just like when your hand hurts after you punch a wall. The right solution isn't to start punching the wall harder, it's to look around for a tool to help you do the job.

In the case of books, the key is that you need to be sure to read books that are at your level. If you read books about subjects you don't know enough to understand or that use a dialect you're not familiar with, it's going to be hard and it's going to be a waste of time. With losing weight, the key is things like the Shangri-La Diet. And with learning an instrument, the key is using [Bemani games](#) that actually make music fun.

I've discussed the other two in other places, but why do Bemani games work? First, you're playing real music. Normally when you play piano, you have to start on baby songs which are both infantilizing and uninteresting, with real music not even on the horizon. Bemani games start you on real songs from the beginning. Since the reason many people get excited about musical instruments in the first place is the chance to play their favorite song, this is a pretty compelling difference. And the fact that the computer simplifies the song and fills in the notes you don't play for you makes it possible.

Second, Bemani games provide clear additional results in proportion to additional effort. This is what makes them so much fun. I don't know about the real science, but in Barbara Ehrenreich's novel *Kipper's Game* the plot revolves around some research showing that games like that stimulate the pleasure centers of the brain. You get the high of achievement, but it quickly wears off as you get used to your new skill level, and so you want to do better so you can get another high.

This is also what makes these games so educational. Research on experts has found such immediate feedback is essential to learning, calling the general process "deliberate practice". In deliberate practice, "subjects should receive immediate informative feedback and knowledge of results of their performance. The subjects should repeatedly perform the same or similar tasks. When these conditions are met, practice improves accuracy and speed of performance on cognitive, perceptual, and motor tasks (Fitts & Posner, 1967; Gibson, 1969; Welford, 1968)." (K. Anders Ericsson, et. al, "[The Role of Deliberate Practice](#)", *Psychological Review*) Your attempts aren't random — it's very clear what works and what doesn't and you can adjust your strategies accordingly.

Third, you can do them in small chunks. When you normally play an instrument, if you hit a wrong note you often keep trying until you get it right. But with Bemani games, the music just keeps marching on without you. This might at first seem a disadvantage, but it means you don't get hung up on a mistake, each attempt takes at most as long the song does. With real music, if you hit a difficult part of the song you can easily get stuck trying over and over to get it right, before getting frustrated and giving up on the whole thing. Keeping the music moving forces you to look at the bigger picture.

The flip side of this is that playing the games gives you a continuous sense of motion and progress. In the mid-1980s — the heyday of video game research — some psychologists were trying to find out what video games quite so much fun. They took the classic Wozniak/Atari game [Breakout](#) and started removing components to see if kids stopped playing it. What they found was you could remove just about everything — the levels, the score, the bouncing off the paddle — everything except for the animations of the bricks disappearing. It was making the bricks disappear, somehow, that made the game fun. (Mind at Play, Loftus and Loftus)

I doubt Bemani games were made with these kind of principles in mind — considering the history, it was probably just a coincidence. But it shows that you could have created Bemani from them. All you needed to do was pay attention to the fact that learning an instrument was frustrating and tried to eliminate the frustrating part. Good designers, when they see people having trouble using something they designed, don't tell the user to try harder. They fix the design. We should take the same attitude when we design our life as well.

*Thanks to Emmett Shear for suggesting pieces of this post.*

*Updated 2006-10-09 to add the second paragraph of point three, which I somehow omitted originally.*

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